SUMMARY OF ISONIAZID AND RIFAPENTINE (3HP) FOR TREATMENT OF LATENT TB INFECTION (LTBI)

The following information is provided as a summary of current guidelines and should not be used as a substitute for review of current treatment recommendations including the following:

1) Guidelines for the Treatment of Latent Tuberculosis Infection: Recommendations from the National Tuberculosis Controllers Association and CDC, 2020 https://www.cdc.gov/mmwr/volumes/69/rr/pdfs/rr6901a1-H.pdf

2) Recommendations for Use of an Isoniazid-Rifapentine Regimen with Direct Observation to Treat Latent *Mycobacterium tuberculosis* Infection: http://www.cdc.gov/mmwr/pdf/wk/mm6048.pdf

- **3HP Therapy:** The recommended regimen is Isoniazid (INH) and Rifapentine (RPT) administered once weekly for 3 months (12 doses). Doses may be supervised or self-administered.

Isoniazid (INH)	Adults and children ≥12 years	15 mg/kg rounded up to the nearest 50 or 100 mg	*900 mg max dose*
	Children aged 2-11 years	25 mg/kg	*900 mg max dose*
Rifapentine (RPT)	Adults and children >2 years	10.0 – 14.0 kg 300 mg 14.1 – 25.0 kg 450 mg 25.1 – 32.0 kg 600 mg 32.1 – 49.9 kg 750 mg > 50.0 kg 900 mg	*900 mg maximum dose*

- **Medication Formulation:** INH is formulated into 100 mg and 300 mg tablets. Rifapentine is formulated into a 150 mg tablet in a blister pack that should remain sealed and at room temperature until used.

- **Patients Recommended for 3HP:** This regimen is recommended for adults and children > 2 years, including HIV positive persons (as drug interactions allow).

- **Patients Not Recommended for 3HP:** This regimen is not recommended for children < 2 years of age, pregnant women or women expecting to become pregnant during treatment and patients who have LTBI with presumed INH or Rifampin resistance.

- **Adverse reactions:** Rash, fever, pruritus, hepatotoxicity, hypotension, thrombocytopenia, hematologic abnormalities, hypersensitivity, flu-like syndrome, drug interactions (Dilantin, Antabuse) and red-orange staining of body fluids.

- **Clinical monitoring:** All patients receiving treatment for LTBI should be seen in person by healthcare personnel at least monthly. Clinical monitoring is the most effective strategy for reducing drug toxicity and is an essential element in all LTBI treatment regimens, regardless of other monitoring efforts. Clinical evaluations during LTBI treatment should assess for: adverse drug reactions, especially hepatotoxicity, adherence to therapy, signs and symptoms concerning for active TB disease and the need for continued patient education.

- **Baseline laboratory evaluation:** Baseline complete blood count (CBC) and serum creatinine should be obtained in patients who will be treated with 3HP. The following patients with an elevated risk of hepatotoxicity should receive baseline liver function tests (LFT's): Pre-existing liver disease, history of alcohol abuse, HIV infection, concurrent treatment with other hepatotoxic medications, current or recent pregnancy (within 3 months of delivery) and individuals who were born in areas with high rates of viral hepatitis (e.g. countries in Asia and Africa). Testing should be considered on an individual basis.

- **Laboratory monitoring during treatment:** Routine LFT's during LTBI treatment is not necessary for most patients however serial LFT's (at least monthly) should be obtained in the following circumstances: history of liver disease, alcohol use or concomitant use of other potential hepatotoxic drugs, pregnancy and abnormal baseline LFT's. Patients treated with 3HP who have lab abnormalities identified on baseline testing are recommended to have periodic CBC checks during therapy. Decisions regarding the frequency of testing and threshold for discontinuation of 3HP are individualized. Indications to stop LTBI treatment due to drug induced liver injury include transaminases ≥ 5 times normal in an asymptomatic patient, transaminases ≥ 3 times normal in a symptomatic patient or total bilirubin ≥ 2.

- **Completion criteria for 3HP:**

Once weekly INH & Rifapentine (3HP)	3 months	12 weekly doses completed within 16 weeks. Doses must be separated by at least 72 hours to count.